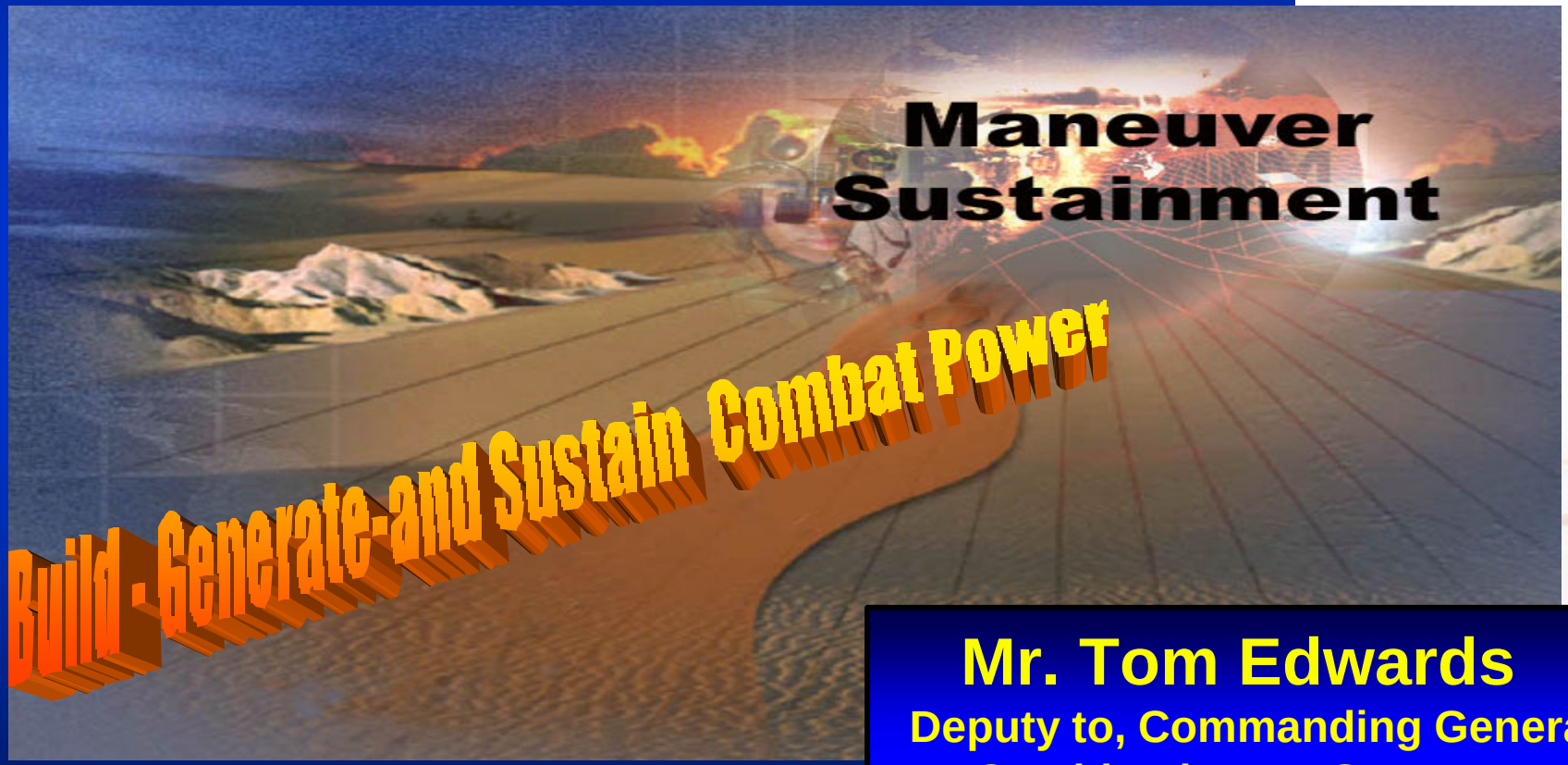
United States Army

Combined Arms Support Command



Mr. Tom Edwards
Deputy to, Commanding General
Combined Arms Support
Command (CASCOM)
28 January 2002

Purpose

Tell you about "Maneuver Sustainment" for the Objective Force!

"Our goal is to be able to deploy a combat-capable brigade anywhere in the world within 96 hrs..."
"...a division on the ground within 120 hrs, and five divisions in 30 days."

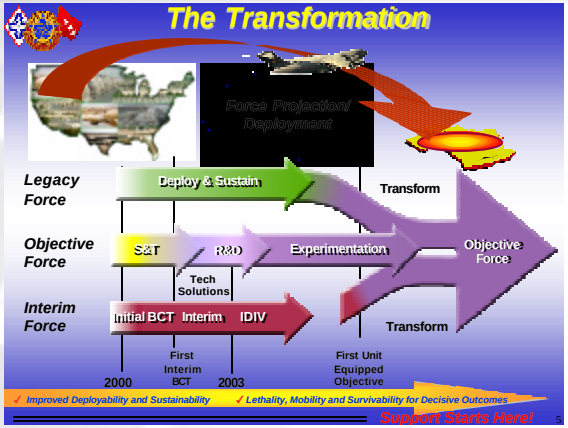
Theme

CSA White Paper

- See First
- Understand First
- Act First

Finish Decisively

General Eric K. Shinseki
CSA



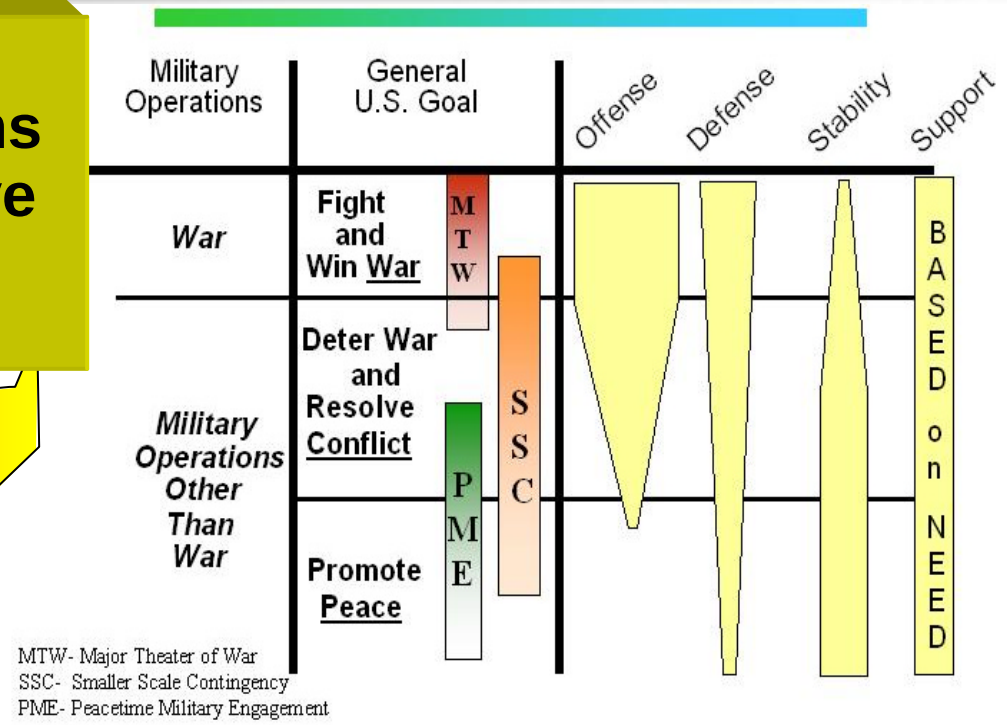
"Services" & "People"

Build, Generate and Sustain Combat Power for the Maneuver Commander at the Point of Decision

-- CG TRADOC Guidance

Full Spectrum Capability

- **Win on the offense**
- **Initiate combat on our terms**
- **Gain and retain the initiative**
- **Build momentum quickly**
- **Win decisively**



Master Transitions

Source: TRADOC U/A Concept Brief

Bottom line: Although optimized for offensive operations in major theater war, Objective Force must be equally effective in full spectrum operations over full range of terrain and weather

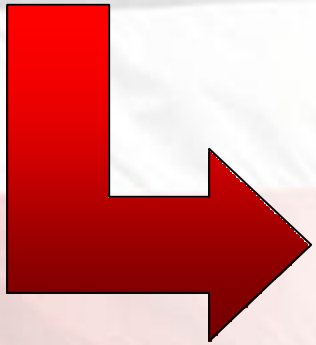
Underlying Sustainment Principles

- **Sustainment Characteristics are still relevant:**
  - **Responsiveness, Simplicity, Economy, Flexibility, Attainability, Sustainability, Survivability, and Integration (JP 4-0, FM 4-0 Draft)**
  - **But… supporting a different operational environment!**
- **Demand Reductions will have to occur, logistics innovations alone will not suffice**
  - **Power and Energy (fuel & water)** -- **Maintenance**
  - **Weight and Cube** -- **Reliability**
- **Military operations and military sustainment are linked as never before:**
  - **Goes beyond LOGCOP, sustainers & warfighters must have complimentary capabilities**
  - **Sustainment is an enabler**
- **Rapidly moving from sustainment by mass to speed and precision:**
  - **execution-centric** -- **distribution-based**
  - **transportation (air/surface) intensive** -- **information dependent**
- **CSS/MSS is becoming more linked/integrated w/ maneuver at tactical and operational levels**
  - **Dwindling military stockpiles / increased reliance on industry inventories**
  - **Transparent sustainment challenges, improved Reach capabilities**
- **Reducing the "logistics footprint" will give way to "rightsizing" the sustainment footprint in the Objective Force**

Source: CASCOM RML Brief

OF Key Operational Tenets

- **Immediately responsive and employable, mission tailored**
- **High level of general-purpose versatility…multi-dimensional options…any threat…any conflict**
- **Simultaneous and sequential, non-contiguous operations**
- **Robust, sustained campaigning and maintenance of continuous tempo**
- **Early initiation of decisive operations**
- **Dominant precision maneuver**



Sustainment then has to be:

- **Knowledge rich to anticipate**
- **Flexible / Agile to respond**
- **Complementary capability**
- **Lean to "maneuver"**
- **Integrate w/joint/coalition**

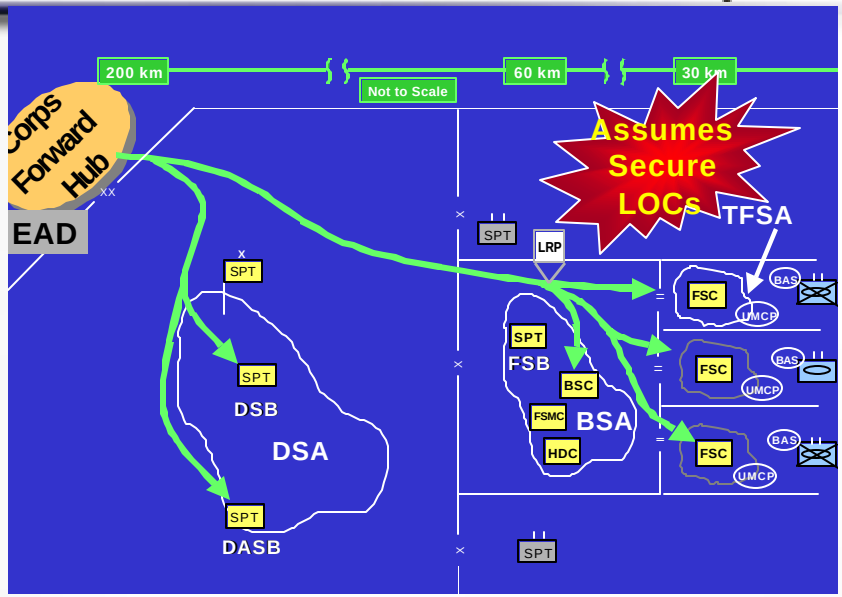
Source: RML Brief

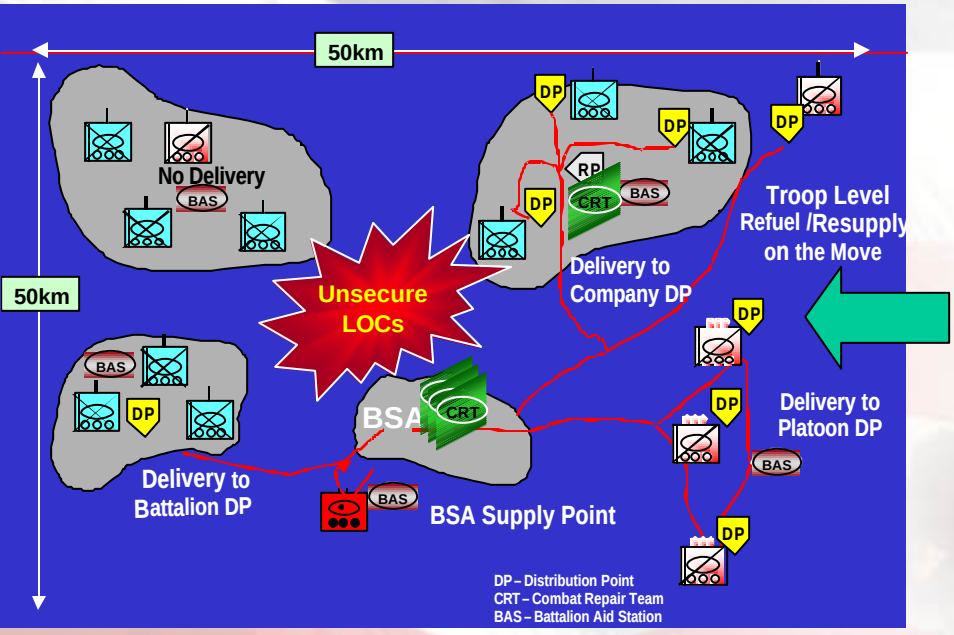
The Changing Operational Environment

1990s to Present...

FXXI Sustainment Concept

Maintenance: Echeloned Capabilities
Class IX: Robust
Recovery: Dedicated Assets (M88A2)
LOGPACS: At Least Daily (Adequate Capacity)
Footprint: CSS to Task Org – 1 to 3
Surge: Some Internal Capability
Operations: Reactive Logistics
Support Concept: DS plus Corps (embedded)
CSS Demand: Absolute 'x' ST
Reach: Corps, EAC



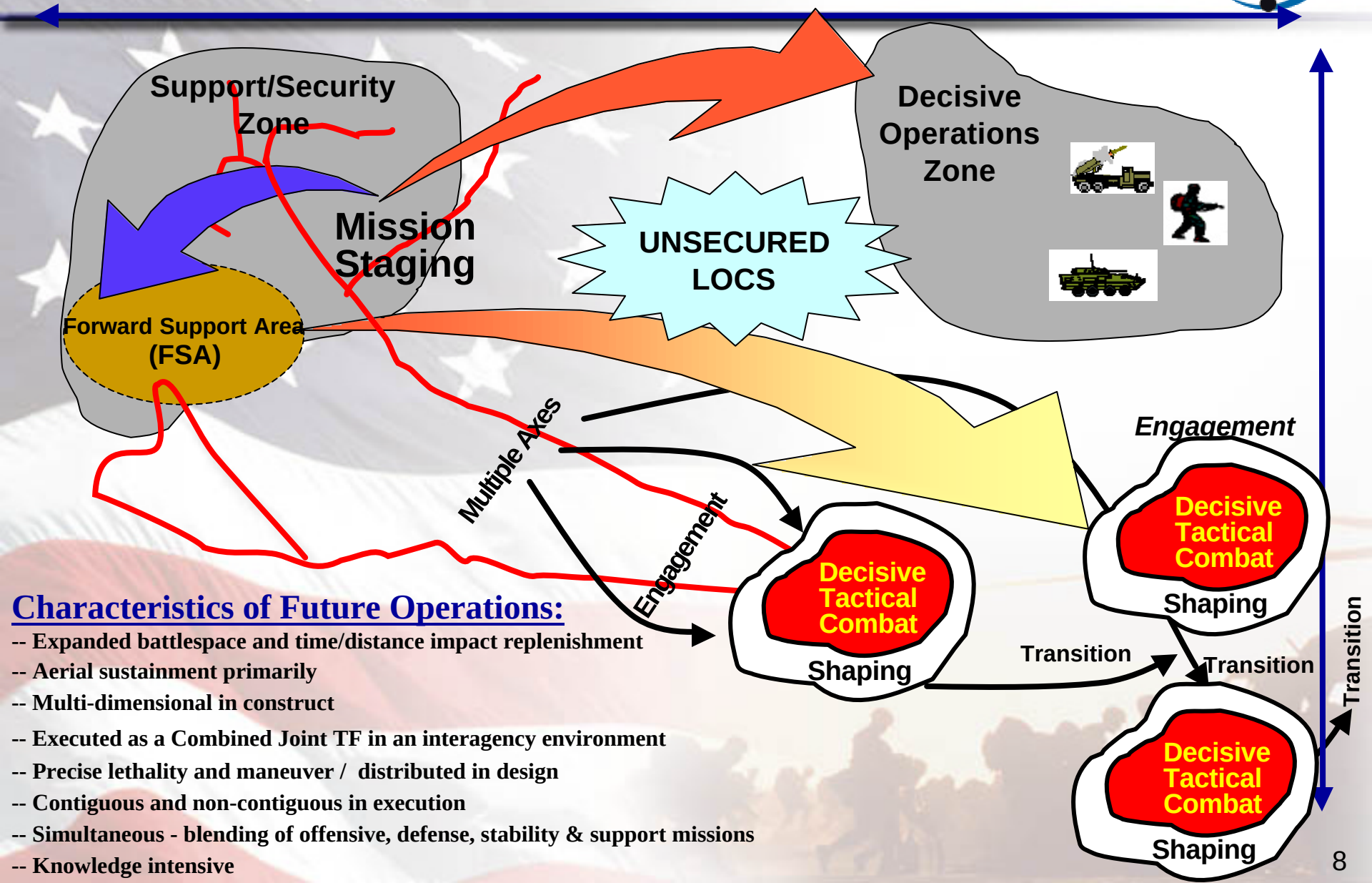


...Present to Future

IBCT Sustainment Concept

Maintenance: No Redundancy -- Unscheduled Maint Only
Class IX: Limited
Recovery: Primarily Self; Like Vehicle Towing
LOGPACS: Every Other Day (less Class IX)
Footprint: CSS to Task Org – 1 to 4
Surge: Externally Dependent
Operations: Anticipatory Logistics
Support Concept: Area plus Reach (on-call)
CSS Demand: 'x' – 20% ST
Reach: Corps / ARFOR, Theater, CONUS

Future Operating Environment



Characteristics of Future Operations:

-- Expanded battlespace and time/distance impact replenishment
-- Aerial sustainment primarily
-- Multi-dimensional in construct
-- Executed as a Combined Joint TF in an interagency environment
-- Precise lethality and maneuver / distributed in design
-- Contiguous and non-contiguous in execution
-- Simultaneous - blending of offensive, defense, stability & support missions
-- Knowledge intensive

Organization Sustainment Considerations

OBJECTIVES

Log Footprint: f((T/D)/(Requirements)/(Concepts))

SITUATIONAL UNDERSTANDING

Maneuver and Logistics Common Operating Picture / Anticipation

"See and Understand First"

INTEGRATE SUSTAINMENT INTO MANEUVER

Rapidly Deployable / Tactically Mobile / Pulsed Operations / Mission Staging / Logistics Replenishment / Support Modules / Support Forces

TRAIN / ALERT / DEPLOY

RSOI (80% set piece, 20% METT-TC dependent)

RAPID AND ASSURED DISTRIBUTION

Global Reach

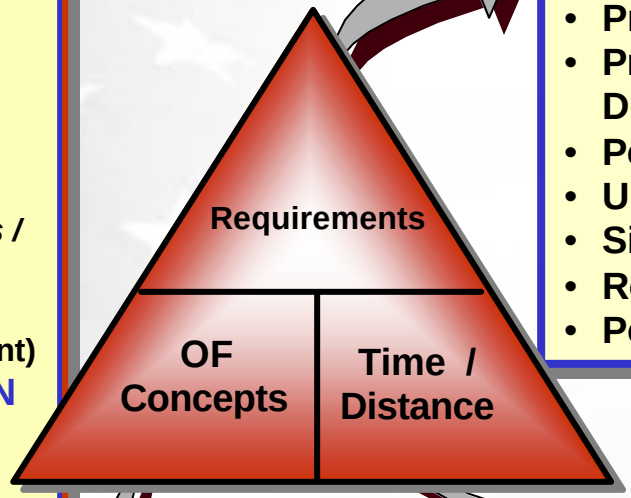
Precision Distribution

"Act First"

ADAPTIVE ORGANIZATIONS

Modular / Tailorable / Maneuver-Focused / Contractors

"Finish Decisively"



- Onboard Water Production
- Precision Ammo
- Prognostics / Diagnostics
- Power Efficiencies
- Ultra-Reliability
- Size/Weight Reductions
- Robotics
- Power & Energy

CSA White Paper

Concept of the Objective Force

TRADOC PAM 525-3 Series

"Laws of Physics" remain

Doctrine Training Leader development **Organizations** *Materiel Soldiers*

Materiel

Identified Required Enablers:

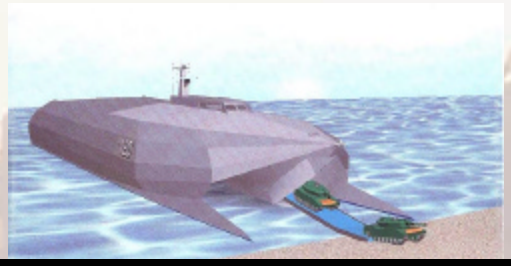
- Future Combat System (FCS)
- Future Tactical Truck System (FTTS)
- Theater Support Vessel (TSV)
- Movement Tracking System (MTS)
- Future Transport Rotorcraft (FTR)
- Advanced Theater Transport (ATT)
- CROP Aircraft Interface Kit
- Light Modular Fuel Farm (LMFF)
- Water Generation
- Precision Aerial Delivery

Strategic, Mission
Unit Configured Loads

- Light Aerial Multi-purpose Vehicle (LAMV)
- Shallow Draft High Speed SEALIFT (SDHSS)
- ASL Mobility System
- Forward Repair System
- Medical Reengineering Initiative
- Future Finance System
- CSS C4ISR (GCSS-A Improved)

Minimize
Handling

Distribution
Versus
Supply Based



Doctrine Training Leader development Organizations Materiel Soldiers

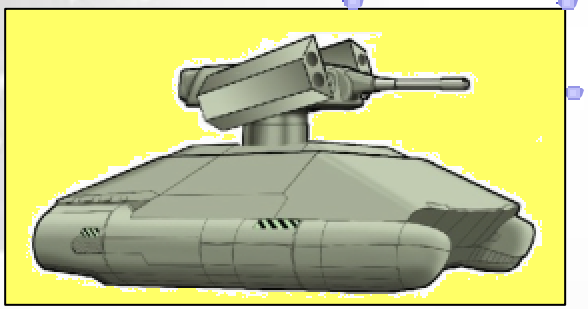
FCS Provider

Power & Energy

Info Tech

Munitions

Prognostics Diagnostics



Commo

≤ 1 Mechanic per 20 FCS

Crew Repairs

- Responsive
- Deployable
- Agile
- Versatile
- Lethal
- Survivable
- Sustainable

Maintenance

Characteristics – Demand is Unknowable and Unpredictable
Objective – Want A 90% Reduction in Unscheduled Repairs & 75% Improvement In RCT (Fault/Damage To Return To Service)

Today's Demand	Satisfied By	Possibility for 2010	Possibilities for the Objective Force by 2025
ORG: DS/GS: 2687.5	Operator/Crew Co Maint Teams Forward Maint Cos AVUMS AVIMS GS Maint Cos HET Cos CTCs Materiel Managers Movement Managers Contractors DOLs Depots Arsenals	**Technology:** • Pit Stop • Multi-Capable Mechanics perform many roles • Simplified tasks • Common, Modular parts • Built in diagnostics • System Integration • Opportunity Based Maintenance • Embedded training and mentoring • Common tools and TMDE • Prognostics • Maximum operator applied parts	**Technology:** • Robotic Assistant • Self Maintaining Systems Net Effect: Improved Capability Reduction In RCT Maint Structure **Becomes More Knowable & Predictable**

Class IX

Characteristics – Demand is Unknowable and Unpredictable
Objective –Total WT/VOL Reduced by 75%

Today's Demand	Satisfied By	Possibility for 2010	Possibilities for the Objective Force by 2025
504.5 ST	Co Maint Teams Forward Maint Cos FSB SSAs GS Maint Cos Repair Parts Cos Med Truck Cos CTCs Materiel Managers Movement Managers	**Technology:** • Prognostics - Physics of Failure, sampling based failure analysis • Real time status monitoring reported through common C4 Architecture • More durable gun tubes - less erosive propellant • Efficient packaging • Limited Mobile Parts Hospital • Commonality across systems • Advanced Materials • High reliability • Battle damage resistant • Multi-Capable Distributor	**Technology:** • Prognostics - Physics of Failure • Ceramic gun tube • Real time status monitoring reported through common C4 Architecture • Efficient packaging • Full Mobile Parts Hospital • Commonality across systems • Advanced Materials • Higher reliability • Battle damage resistant Net Effect: Improved Availability Reduction In: Requirement Supply Structure Trans Structure **Becomes Knowable & Predictable**

Reach Operations

- DLA Configured MREs
- Prime Vendor Subsistence

DLA

AMC

Providers

DFAS

Human Resources

FACTORY

MEDCOM

Ports of Embarkation

Ultra large lifter

C-17

Theater

CINC/ASCC
JTF/ARFOR

Ports of Debarkation

TSC(-)

TSV

C-130

AO

LEGACY

INTERIM

OBJ FORCE

RO/RO

- System Support Packages
- Configured Loads
- CL VII replacement stocks

- Prime Vendor
- MEDCOM
- Host Nation Support
- Theater Contractors
- LOGCAP
- System Support

- DLA Common Items

Contractor Support

- System
- Theater
- External

Doctrinal Developments

April 2000

Joint Publication 4-0

Doctrine for Logistic Support of Joint Operations

Chapter V

Contractors in Theater

FM 4-100.2 (100-10-2)

Contracting Support on the Battlefield

4 August 1999

FM 3-100.21 (100-21)

Contractors on the Battlefield

26 March 2000

FM 3-100.21 (100-21)

Tactics, Techniques, and Procedures for Contractors on the Battlefield

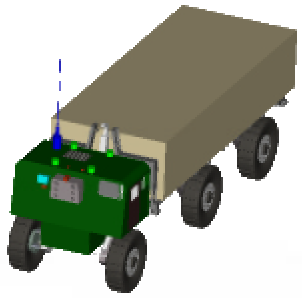
SECOND DRAFT!

JULY 27, 2001

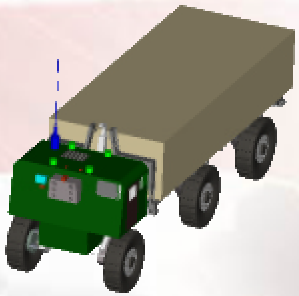
Training Strategies

- **Conventional training wisdom still applies**
- **Just in Time Training (JIT)**
- **Distributed Learning**
- **CSS Transformation**

Army Trucks – *The Future*



- **We Need ‘Em!!**
- **We Need Lots of ‘Em!!**
- **We Need ‘Em To Run Good!!**
- **We Need ‘Em to Run Cheap!!**



Questions??

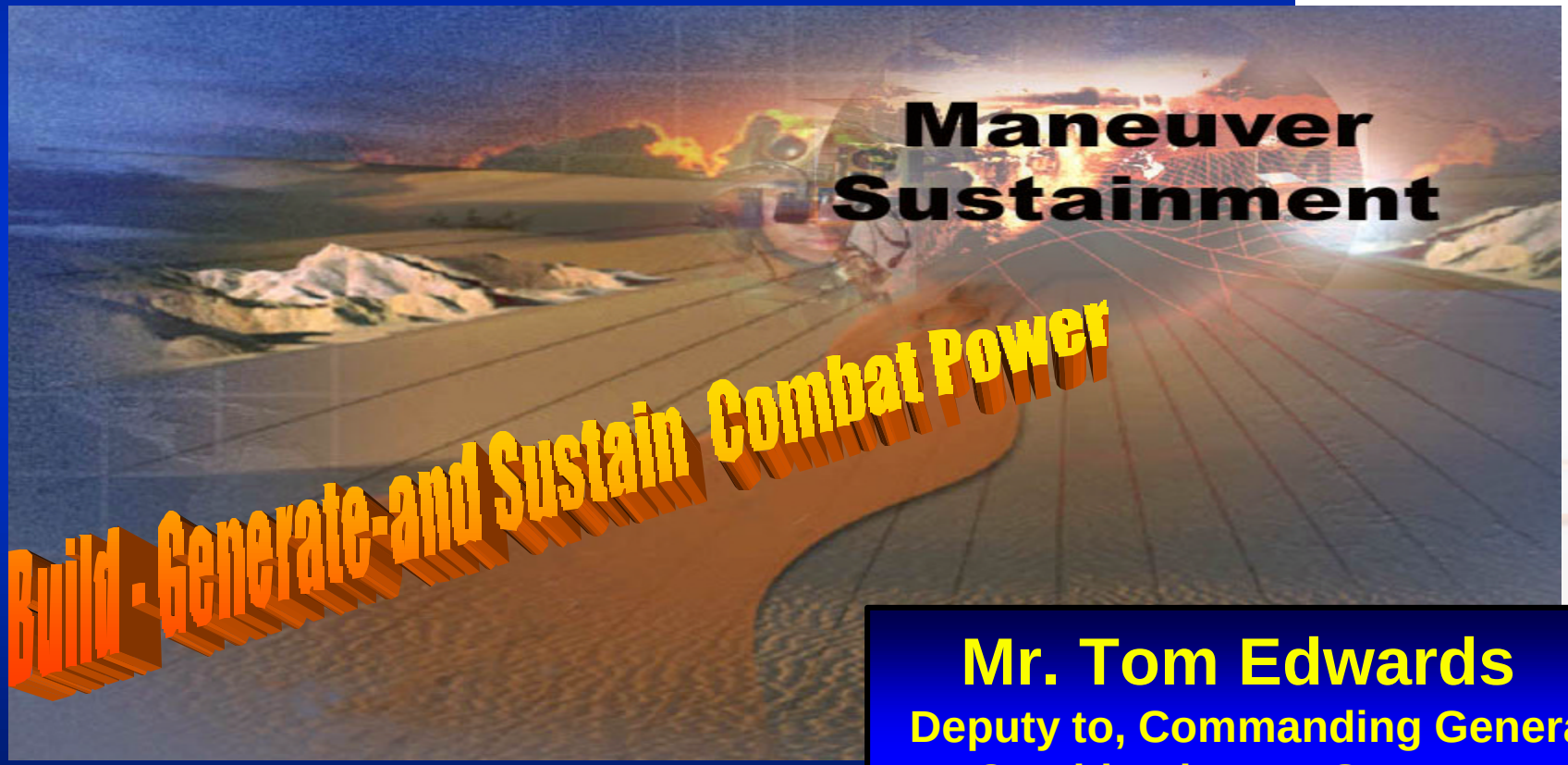
CASCOM Homepage

http://www.cascom.army.mil/

Point → Click → CASCOM

United States Army

Combined Arms Support Command



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